# REFERENCES


[1] G.A. Deschamps, \Microstrip Microwave Antennas," *3rd USAF Symposium on Antennas*, 1953.

[2] N.G. Alexopoulus, \Integrated-circuit structures on anisotropic substrates," *IEEE Transactions on Microwave Theory and Techniques*, Vol. 33, No. 10, October 1985, pp. 847-881.

[3] David M. Pozar and Daniel H. Schaubert, \Microstrip Antennas: The analysis and Design of Microstrip Antennas and Arrays", IEEE Press, Piscataway, NJ, 1995.

[4] Warren L. Stutzman and Gary A. Thiele, \Antenna Theory and Design," 2nd ed., John Wiley and Sons, Inc., New York, 1998.

[5] Constantine A. Balanis, \Antenna Theory: Analysis and Design," Harper and Row, Publishers, New York, 1982.

[6] R.E. Munson, \Conformal microstrip antennas and microstrip phased arrays," *IEEE Transactions on Antennas and Propagation*, Vol. 22, Issue 1, January 1974, pp. 74-78.

[7] T.G. Campbell, \An extremely thin omnidirectional microwave antenna array for spacecraft applications," NASA Tech. Note D-5539, Nov. 1969.

[8] J.Q. Howell, \Microstrip antennas," *IEEE Transactions on Antennas and Propagation*, Vol. 14, Issue 1, January 1975, pp. 90-93.

[9] N.K. Uzunoglu, N.G. Alexopoulos and J.G. Fikioris, \Radiation properties of microstrip dipoles," *IEEE Transactions on Antennas and Propagation*, Vol. 27, No. 6, November 1979, pp. 853-858.

[10] I.E. Rana and N.G. Alexopoulos, \Current distribution and input impedance of printed dipoles," *IEEE Transactions on Antennas and Propagation*, Vol. 29, No. 1, January 1981, pp. 99-105.

[11] D.M. Pozar, \Input impedance and mutual coupling of rectangular microstrip antennas," *IEEE Transactions on Antennas and Propagation*, Vol. 30, No. 6, November 1982, pp. 1191-1196.

[12] T. Itoh, \Spectral domain immitance approach for dispersion characteristics of generalized printed transmission lines," *IEEE Transactions on Antennas and Propagation*, Vol. 28, No. 7, July 1980, pp. 733-736.

[13] T. Itoh and W. Menzel, \A full-wave analysis method for open microstrip structures," *IEEE Transactions on Microwave Theory and Techniques*, Vol. 29, No. 1, January 1981, pp. 63-68.

[14] I.J. Bahl, P. Bhartia and S.S. Stuchly, \Design of microstrip antennas covered with a dielectric layer," *IEEE Transactions on Antennas and Propagation*, Vol. 30, No. 2, March 1982, pp. 314-318.

[15] H. Lee and V.K. Tripathi, \Spectral domain analysis of frequency dependent propagation characteristics of planar structures on uniaxial medium," *IEEE Transactions on Microwave Theory and Techniques*, Vol. 30, No. 8, August 1982, pp. 1188-1193.

[16] R.M. Nelson, D.A. Rogers and A.G. D'Assuncao, \Resonant frequency of a rectangular microstrip patch on several uniaxial substrates," *IEEE Transactions on Antennas and Propagation*, Vol. 38, No. 7, July 1990, pp. 973-981.

[17] C.M. Krowne, \Green's function in the spectral domain for biaxial and uniaxial anisotropic planar dielectric structures," *IEEE Transactions on Antennas and Propagation,* Vol. 32, No. 12, December 1984.
[18] C.M. Krowne, \Determination of the Green's function in the spectral domain using a matrix method: application to radiators or resonators immersed in a complex anisotropic layered medium," *IEEE Transactions on Antennas and Propagation,* Vol. 34, No. 2, February 1986.
[19] D.M. Pozar, \Radiation and scattering from a microstrip patch on a uniaxial substrate," *IEEE Transactions on Antennas and Propagation,* Vol. 35, No. 6, June 1987, pp. 613-621.
[20] J.R.S. Oliveira and A.G. D'Assuncao, \Input impedance of microstrip patch antennas on anisotropic dielectric substrates," *Antennas and Propagation Society International Symposium, 1996. AP-S. Digest,* Vol. 2, July 21-26, 1996, p. 1066-1069.
[21] H.C. Baker and A.H. LaGrone, \Digital computation of the mutual impedance between thin dipoles," *IRE Transactions on Antennas and Propagation,* March 1962, pp. 172-178.
[22] N.G. Alexopoulos and I.E. Rana, \Mutual impedance computation between printed dipoles," *IEEE Transactions on Antennas and Propagation,* Vol. 29, No. 1, January 1981, pp. 106-112.
[23] Julius Adams Stratton, \Electromagnetic Theory," 1*st* Ed., McGraw-Hill Book Company, New York, NY, 1941, pp. 464-468.
[24] R.P. Jedlicka, M.T. Poe and K.R. Carver, \Measured mutual coupling between microstrip antennas," *IEEE Transactions on Antennas and Propagation,* Vol. 29, No. 1, January 1981.
[25] E.H. Newman, J.H. Richmond and B.W. Kwan, \Mutual impedance computation between microstrip antennas," *IEEE Transactions on Microwave Theory and Techniques,* Vol. 31, No. 11, November 1983, pp. 941-945.
[26] E.H.V. Lil and A.R.V. DeCapelle, \Transmission line model for mutual coupling between microstrip antennas," *IEEE Transactions on Antennas and Propagation,* Vol. 32, No. 8, August 1984.
[27] V. Hansen and M. Patzold, \Input impecdance and mutual coupling of rectangular microstrip patch antennas with a dielectric cover," *16th European Microwave Conference, 1986,* October 1986, p. 643-648.
[28] P.B. Katehi, \Mutual coupling between microstrip dipoles in multielement arrays," *IEEE Transactions on Antennas and Propagation,* Vol. 37, No. 3, March 1989, pp. 275-280.
[29] A.H. Mohammadian, N.M. Martin and D.W. Gri±n, \A theoretical and experimental study of mutual coupling in microstrip antenna arrays," *IEEE Transactions on Antennas and Propagation,* Vol. 37, No. 10, October 1989, pp. 1217-1223.
[30] A. Benalla and K.C. Gupta, \Mutual coupling between rectangular microstrip patchs covered with a dielectric cover layer," *Antennas and Propagation Society International Symposium, 1990. AP-S. 'Merging Technologies for the 90's'.Digest.,* Vol. 1, May 7-11 1990, pp. 358-361.
[31] C. Terret, S. Assailly, K. Mahdjoubi and M. Edimo, \Mutual coupling between stacked square microstrip antennas fed on their diagonal," *IEEE Transactions on Antennas and Propagation,* Vol. 39, No. 7, July 1991, pp. 1049-1051.

[32] P.F. Wahid and T. Voor, \Mutual impedance between skewed patch antennas," *IEEE Transactions on Antennas and Propagation,* Vol. 42, No. 5, May 1994, pp. 754-756.
[33] M.D. Deshpande and M.C. Bailey, \Input impedance of microstrip antennas," *IEEE Transactions on Antennas and Propagation,* Vol. 30, No. 4, July 1982, pp. 645-650.
[34] A.K. Verma and Nasimuddin, \Input impedance of rectangular microstrip patch antenna with iso/anisotropic substrate-superstrate," *IEEE Microwave and Wireless Components Letters,* Vol. 11, No. 11, November 2001, pp. 456-458.
[35] V.D. Costa, I. Bianchi, J.C. da S. Lacava and L. Cividances, \Analysis of electromagnetically coupled microstrip antennas printed on anisotropic substrates," *Microwave and Optoelectronics Conference, 2003. IMOC 2003. Proceedings of the 2003 SBMO/IEEE MTT-S International,* Vol. 1, September 20-23, 2003, pp.317-322.
[36] R.B. Waterhouse, S.D. Targonski and D.M. Kokoto, \Design and performance of small printed antennas," *IEEE Transactions on Antennas and Propagation,* Vol. 46, No. 11, November 1998.
[37] C.Y. Chiu, C.H. Chan and K.M. Luk, \Study of a small wide-band patch antenna with double shorting walls," *IEEE Antennas and Wireless Propagation Letters,* Vol. 3, 2004.
[38] Y. Li, R. Chair, K.M. Luk and K.F. Lee, \Broadband triangular patch antenna with a folding shorting wall," *IEEE Antennas and Wireless Propagation Letters,* Vol. 3, 2004.
[39] A. Shackelford, K.F. Lee, D. Chatterjee, Y.X. Guo, K.M. Luk and R. Chair, \Small-size wide-bandwidth microstrip patch antennas," *IEEE Antennas and Propagation Society International Symposium, 2001,* Vol. 1, July 8-13, 2001, pp. 86-89.
[40] R.L. Li, G. DeJean, E. Tsai, E. Tentzeris and J. Laskar, \Novel small folded shorted-patch antennas," *IEEE Antennas and Propagation Society International Symposium, 2002,* Vol. 4, June 16-21, 2002, pp. 26-29.
[41] A.F. Sheta, H. Boghdady, A. Mohra and S.F. Mahmound, \A novel dual-band small size microstrip antenna," *ACES Journal,* Vol. 21, No. 2, July 2006, pp. 135-142.
[42] L. Markley and G.V. Eleftheriades, \A negative-refractive-index metamaterial for incident plane waves of arbitrary polarization," *IEEE Antennas and Wireless Propagation Letters,* Vol. 6, 2007.
[43] P. Baccarelli, P. Burghignoli, F. Frezza, A. Galli, P. Lampariello, G. Lovat and S. Paulitto, \Fundamental modal properties of surface waves on metamaterial grounded slabs," *IEEE Transactions on Microwave Theory and Techniques,* Vol. 53, No. 4, April 2005.
[44] www.zeland.com.
[45] K. Buell, H. Mosallaei and K. Sarabandi, \Metamaterial insulator enabled superdirective array," *IEEE Transactions on Antennas and Propagation,* Vol. 55, No. 4, April 2007, 1074-1085.
[46] K.G. Balmain, A.A.E. Luttgen and P.C. Kremer, \Resonance cone formation, refection, refraction, and focusing in a planar anisotropic metamaterial," *IEEE Antennas and Wireless Propagation Letters,* Vol. 1, 2002.
[47] K.G. Balmain, A.A.E. Luttgen and P.C. Kremer, \Power flow for resonance cone phenomena in planar anisotropic metamaterials," *IEEE Transactions on Antennas and Propagation,* Vol. 51, No. 10, October 2003.
[48] F. Yang and Y. Rahmatt-Samii \Microstrip antennas integrated with electromagnetic band-gap (EBG) structures: a low mutual coupling design for array applications," *IEEE*

*Transactions on Antennas and Propagation*, Vol. 51, No. 10, October 2003, pp. 2936-2946.
[49] R. Chair, A.A. Kishk and K-F. Lee, \Comparative study on the mutual coupling between di®erent sized cylindrical dielectric resonators antennas and circular microstrip patch antennas," *IEEE Transactions on Antennas and Propagation*, Vol. 53, No. 3, March 2005, pp. 1011-1019.
[50] I.J. Bahl and P. Bhartia \Microstrip Antennas," Artech House, Inc. Dedham, MA, 1980, p.214-215.
[51] Y. Chen and B. Beker, \Analysis of an array of four microstrip patch resonators printed on an anisitropic substrate," *IEEE Transactions on Microwave Theory and Techniques*, Vol. 43, No. 2, February 1995.
[52] F.J. Harackiewicz and D.M. Pozar, \Radiation and scattering by infinite microstrip patch arrays on anisotropic substrates," *Antennas and Propagation Society International Symposium, 1988. AP-S. Digest*, Vol. 1, June 6-10, 1988, p. 10-13.
[53] A.L.P.S. Campos an A.G. d'Assuncao, \Scattering paramters of a frequnecy selective surface between anisotropic dielectric layers for incidnet co-polarized plane waves," *IEEE Antennas and Propagation Society International Symposium, 2001,* Vol. 4, July 8-13, 2001, p. 382-385.
[54] A.L.P.S. Campos an A.G. d'Assuncao, \Scattering by FSS on anisotropic substrate for TE and TM excitation," *IEEE Transactions on Microwave Theory andTechniques*, Vol. 50, January 2002.
[55] A.L.P.S. Campos an A.G. d'Assuncao, \Hertz vector potential analysis of FSS on anisotropic substrates," *Proceedings fo the 2003 SBMO/IEEE MTT-S International Microwave and Optoelectronics Conference, 2003* Vol. 1, September 20-23, 2003, p. 473-477.
[56] K. Finkenzeller, *RFID Handbook:Fundamentals and Applications in Contactless Smart Cards and Identification*, John Wiley and Sons, West Sussex, England, 2003.
[57] J-P Curty, M. Declercq, C. Dehollain and N. Joehl, *Design and Optimization of Passive UHF RFID Systems*, Springer-Verlag New York, LLC, 2006.
[58] E. Cooney, *RFID :The Complete Review of Radio Frequency Identification*, Cengage Delmar Learning, 2006.
[59] D. Paret, R. Riesco, R. Riesco, *RFID and Contactless Smart Card Applications*, John Wiley and Sons, Inc., 2005.
[60] V.D. Hunt, A. Puglia, and M. Puglia, *RFID-A Guide to Radio Frequency Identification*, John Wiley and Sons, Inc., 2007.
[61] E.W. Schuster, S.J. Allen and D.L. Brock, *Global RFID: The Value of the EPCglobal Network for Supply Chain Management*, Springer-Verlag New York, LLC, 2006.
[62]Prasanna Lakshmi,et-al(2015)," *Design of Micro Strip Patch Antenna Array*".
[63]Migliore Marco Donald, et-al(2009)," *A Beamforming Algorithm for Adaptive antennas Operating in Crowded CDMA Signal Environment*".